

**ODISHA ELECTRICITY REGULATORY COMMISSION  
BIDYUT NIYAMAK BHAWAN  
PLOT NO.4, CHUNOKOLI, SHAILASHREE VIHAR,  
BHUBANESWAR - 751021**

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**Present: Shri G. Mohapatra, Officiating Chairperson  
Shri S. K. Ray Mohapatra, Member**

**Case No. 102/2023**

M/s. TPCODL

..... Petitioner

Vs.

DoE, GoO & Others

..... Respondents

**In the matter of:**      **Application for approval of Capital Investment Plan for FY 2024-25 in the licensed area of its operation in compliance to the directions of the Commission vide para 42 of the vesting order dated 26.05.2020 passed in Case No. 11 of 2020 as well as the OERC (Terms and Conditions for determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022.**

**For Petitioner:**      Shri Arvind Singh, CEO, TPCODL and Shri V. Wagle, Chief - Regulatory & Govt. Affairs, TPCODL.

**For Respondents:**      Ms. Sonali Patnaik, Manager (Legal), DoE, GoO; Shri B.C. Padihary, GM (Finance), GRIDCO Ltd.; and Shri Subhashis Samantaray, DGM (Electrical), RT&C, OPTCL. Non-appears on behalf of Shri Ananda Kumar Mohapatra.

**ORDER**

**Date of Hearing: 28.11.2023**

**Date of Order: 12.12.2023**

- The Petitioner- M/s. TP Central Odisha Distribution Limited (TPCODL) has filed an application for approval of its Capital Expenditure plan for FY 2024-25 in compliance to the directions of the Commission vide para 42 of the vesting order dated 26.05.2020 passed in Case No. 11 of 2020 as well as the OERC (Terms and Conditions for determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022 for network strengthening, improvement in power supply quality & reliability, meeting load growth, reducing the losses and for taking up safety & statutory activities in its area of operation. TPCODL, has submitted investment plan under CAPEX to the tune of Rs.416.00 Crores dated 31.10.2023 for the approval of the Commission.
2. TPCODL's licensed area is spread over 29,354 sq. km and serves a registered consumer base of around 30.75 lakhs. TPCODL procures power from GRIDCO through Odisha Power Transmission Corporation Limited (OPTCL)'s 220/33 kV or 132/33 kV or 220/132/33 kV grid sub-stations at sub transmission voltage level of 33 kV and then distributes the power

at 33 kV/11 kV/0.440 kV/0.230 kV depending on the demands of the consumers. A snapshot of distribution infrastructure of TPCODL in its area of operation is given in the table below:

**Table 1: Distribution Infrastructure of TPCODL**

Sl. No.	Particulars	Unit	Details (as on 31-March-23)
1	Area	Sq. km	29,354
2	Consumers	No.	30,75,430
3	Circles	No.	5
4	Divisions	No.	20
5	Subdivisions	No.	65
6	Total No of PSS	No.	369
7	33/11 kV PTR	No.	816
8	Transformation Capacity of PTRs	MVA	4,863
9	11kV feeders	No.	1,411
10	33 kV feeders	No.	233
11	Sections in network	No.	246
12	Length of 11 kV Feeders	km	39350 (OH-38767 & UG- 583)
13	Length of 33 kV Feeders	km	4082 (OH-3734 & UG- 348)
14	Length of LT Lines	km	50435 (OH-50365 & UG- 70)
15	11/0.433 kV DTR	No.	77,549
16	Transformation Capacity of 11/0.433 kV DTR	MVA	5,702

3. As per the Vesting Order, TPCODL has to seek the approval of the Capital Expenditure Plan in line with the OERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022. The extracts from the Vesting Order are as follows:

“42. *Capital investment plan*

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- (b) *In its Bid submitted in response to the RFP, TPCL committed capital expenditure of Rs. 1,541 Crores. (Indian Rupee One thousand five hundred and forty-one Cr only) for period FY 2021 to FY 2025 as follows:*

*Table 1: TPCL Capital Expenditure Commitment*

*(Values in Rs. Cr)*

<b>FY 2020-21</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>	<b>FY 2024-25</b>	<b>Total</b>
201	393	310	338	299	1541

- (c) *To allow flexibility in the capital expenditure planning, the Commission stipulates that, in the capital expenditure plan to be submitted by TPCODL as per the license conditions, the capital expenditure commitment for each year of the period FY 2021*

to FY 2025 must be such that capital expenditure proposed up to a year shall be at least equal to the cumulative capital expenditure committed up to that year in the Bid submitted by TPCL. For avoidance of doubt, the minimum cumulative capital expenditure to be proposed by TPCODL for the period FY 2021 to FY 2025 must be as provided in the table below:

Table 2: TPCL Cumulative Capital Expenditure for 5 years

(Values in Rs. Cr)				
<i>Up to 31-Mar-2021</i>	<i>Up to 31-Mar-2022</i>	<i>Up to 31-Mar-2023</i>	<i>Up to 31-Mar-2024</i>	<i>Up to 31-Mar-2025</i>
201	594	904	1,242	1,541

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- (e) *TPCODL would be required to seek the Commission's approval on the detailed capital expenditure plan in line with the regulations. TPCODL shall satisfy the Commission that the capital expenditure plan submitted in line with regulations adheres to the capital expenditure plan submitted as part of the Bid."*
4. Further, in line with the Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022 the licensee is required to take approval from the Commission for undertaking Capex in its licensed area. The relevant extracts of the said Regulation are as follows:

*"3.2 Capital Investment:*

- 3.2.1 The Distribution Licensee shall submit detailed capital investment plan, financing plan and physical targets for each year of the Control Period for strengthening and augmentation of distribution network, meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, metering, reduction in congestion, etc., to the Commission for approval, as a part of the Business Plan applicable for the entire control period and annual proposal for each year of the Control Period.*
- 3.2.2 The Distribution Licensee shall file a separate annual Capital Investment Plan comprising of capital investment plan, financing plan and physical targets for each year of the Control Period as per the timelines specified in Annexure-I.*
- 3.2.3. The Distribution Licensee shall be required to ensure optimum investments to enhance efficiency, productivity and meet performance standards prescribed by the Commission and strictly adhering to the approved annual Capital Expenditure plan as per provisions of the Vesting Order.*
- 3.2.4. Capital Investment in network expansion in Distribution shall be based on Load Flow studies and in accordance with the requirements of the State Grid Code.*
- 3.2.5. The Distribution licensee shall submit the Capital Investment Plan that shall show separately, on-going projects that will spill over from previous years, and new projects (along with justification) that will commence but may be completed within or beyond the control period. The capital investment plan shall contain the scheme details, justification for the work, scheduled / expected date of commissioning, justification for*

*delay (if any) in commissioning, cost over-run, time over-run, capitalization schedule, capital structure and cost benefit analysis (wherever applicable).*

*3.2.6. The Distribution Licensee shall submit the Detailed Project Reports (DPRs) for all the schemes (including network strengthening and expansion/ augmentation projects based on load flow study) which shall include:*

- a. Scope and Objective;*
- b. Purpose of investment;*
- c. Broad Technical Specifications of the proposed investment and supporting details;*
- d. Capital Structure;*
- e. Capitalization Schedule;*
- f. Financing Plan, including identified sources of investment;*
- g. Physical targets;*
- h. Cost-benefit analysis;*
- i. Approval from Board of Directors (BoD)*
- j. Prioritization of proposed Investments.*

*3.2.7. The Capital Investment Plan shall be a least cost plan for undertaking investments and shall cover all capital expenditure projects of proposed investment schemes or such other amount as may be stipulated by the Commission from time to time and shall be in such form as may be stipulated.*

*3.2.8. The Capital Investment Plan shall be accompanied by such information, particulars and documents as may be required including but not limited to the information such as number of power & distribution substations, consumer strength, transformation capacity (in MVA), HT:LT ratio, distribution line length at HT & LT level etc. showing the need for the proposed investments, alternatives considered, cost/benefit analysis and other aspects that may have a bearing on the wheeling charges of the Wheeling Business.*

*3.2.10. Capital investment plan shall incorporate list of schemes in order of priority so as to enable the Commission to approve the schemes in that order and in case lesser amount of capital expenditure is to be approved then the schemes of lower priority could be disallowed.*

*3.2.11. The Distribution Licensee shall be required to consider the annual capital investment plan as approved by the Commission in its Order, in preparation of the Petition for determination of Aggregate Revenue Requirement (ARR) for each year of the control period. The ARR Petition shall include details showing the progress of capital expenditure projects, together with such other information, particulars or documents as the Commission may require for assessing the progress.*

5. As per the Licence Conditions 11 and 32, investment above Rs. 5 Cr. is to be made by the distribution licensee in the licensed business area of operation with the approval of the Commission. The Licence Conditions at 11 and 32 stipulate as stated hereinafter:

*“11. INVESTMENTS*

*11.1 Unless otherwise directed by the Commission, every licensee shall obtain prior approval of the Commission for making investment in the Licensed Business if such investment is above the limits laid down in Condition 32.*

*11.2 The Licensee shall duly comply with the Regulations, guidelines, directions and orders the Commission may issue from time to time in regard to the investments to be made in the Distribution Business.*

*11.3 The Licensee shall submit to the Commission investment plans as a part of the business plan under Condition 10.9 above giving details of investment schemes to be*

*undertaken during the concerned period for the approval of the Commission. The Licensee shall demonstrate to the satisfaction of the Commission that:*

- (a) there is a need for such investments in the Distribution System;*
- (b) the Licensee has made techno-economic analysis and environmental aspects of all viable alternatives to the proposal for investing in or acquiring new Distribution System assets to meet such need.*
- (c) the investment plan is in conformance to the conditions for capital investment specified in the Vesting Order*

*11.4 In the application for investment approval, the Licensee shall furnish the following information or particulars:*

- (a) A detailed project report containing techno-economic analysis and environmental aspects of the investment together with the outline of the works to be undertaken the salient features and particulars demonstrating the need for investment;*
- (b) The project cost together with the cost benefit analysis;*
- (c) Whether the investment is in a new project or for expansion or up-gradation of an existing system;*
- (d) Sanctions and statutory clearances required for execution of the project and status of such sanctions and statutory clearances;*
- (e) Phasing of investment over the financial years and commissioning schedule;*
- (f) The manner in which investments will be capitalised for the purposes of inclusion in the revenue requirements of the Licensee;*
- (g) Constraints which the Licensee may face in making the investments or in implementing the project including constraints on information available;*
- (h) Resource mobilisation and financial plans for meeting the investment;*
- (i) Process for inviting and finalizing tenders for procurement of equipment, material and /or services relating to investment, in accordance with a transparent tendering procedure as may be approved by the Commission; and*
- (j) Such other particulars as the Commission may from time to time direct.*

**32. INVESTMENT AND TRANSFER OF ASSETS (IN CONTINUATION TO CONDITION 11 AND 12)**

**32.1** *For the purposes of Condition 11.10, the term “major investment” means any planned scheme wise investment in or acquisition of distribution facilities like Rural Electrification, System Improvement, Major Renovation & Modernization works, the cost of which, when aggregated with all other investments or acquisitions (if any) forming part of the same overall transaction/scheme, equals or exceeds Rs. 5 Cr or otherwise determined by the Commission from time to time by a general or special order. For smaller transactions for which prior approval of the Commission has not been obtained, the proposals will be considered at the time of annual true-up subject to prudence check by the Commission.”*

6. Accordingly, in line with the above provisions, TPCODL has submitted the application for approval of its Capital Expenditure Plan for FY 2024-25 on 31.10.2023 for an amount of Rs. 416.00 Cr.
7. The public notice was issued on 02.11.2023 inviting suggestions/objections to the Capex Plan for FY 2024-25 of the DISCOMs which were to be filed on or before 18.11.2023. The public hearing on the matter was held on 28.11.2023. The Commission during hearing heard the Petitioner-TPCODL and the stakeholders namely OPTCL, GRIDCO, SLDC and DoE, GoO.
8. Earlier, TPCODL had proposed for approval of its capital expenditure to the tune of Rs.344.44 Crores for the FY 2020-21 to carry out various activities in its area of operation and the Commission, vide its order dated 08.09.2020 in Case No. 32 of 2020, had approved the Capex of Rs. 280.63 Crores for FY 2020-21.
9. Similarly, TPCODL had proposed for approval of its capital expenditure to the tune of Rs.607.46 Crores for the FY 2021-22 to carry out various activities in its area of operation and the Commission, vide its order dated 18.09.2021 in Case No. 05 of 2021, had approved the Capex of Rs.233.81 Crores for FY 2021-22. However, in a separate order dated 04.09.2021 in Case No.32 of 2020, the Commission had allowed capital expenditure of Rs.17.32 Crores for implementation of Geographic Information System (GIS) during the period from FY 2020-21 to FY 2022-23 and Rs.47.60 Crores towards implementation of Smart Meters during the period from FY 2020-21 to FY 2023-24. In totality, the Commission had approved a Capex of Rs.298.73 Crores in respect of TPCODL for FY 2021-22.
10. Subsequently, the Commission, vide its order dated 19.07.2022 in Case No.14 of 2022, had approved an amount of Rs.243.31 Crores towards capital expenditure of TPCODL for the FY 2022-23 against their proposal of Rs.480.76 Crores. Further, vide order dated 16.12.2022 in Case No.51 of 2022, the Commission had allowed an additional/ supplementary capex amounting to Rs.137.25 Crores in respect of TPCODL for the FY 2022-23 for mitigating overloading of lines & transformers and low voltage problem, particularly in Bhubaneswar, Cuttack, Puri & Dhenkanal under the Scheme “Reliability” and “Load growth”. In totality, the Commission had approved a Capex of Rs.380.56 Crores in respect of TPCODL for FY 2022-23.
11. For the FY 2023-24, TPCODL had proposed for approval of its capex plan to the tune of Rs. 512.37 Crores on dated 23.12.2022 in Case No.98 of 2022 and had revised its proposal consequent upon BoD approval to Rs. 300.04 Crores on dated 29.04.2023. The Commission

had approved an amount of Rs. 283.72 against the above proposal for the FY 2023-24 vide its order dated 21.06.2023.

12. The status of the CAPEX approved vis-à-vis actual from FY 2020-21 to FY 2023-24 (upto September-2023) is given in the table below:

**Table 2: TPCODL CAPEX Approved vis-à-vis Actual upto 30-09-2023.**

Sl. No.	Major Category	Vesting Order	Capex Approved	Actual Capex till 30-09-2023	Capitalised till 30-09-2023	Balance to be Capitalised
<b>FY 2020-21</b>						
1	Statutory & Safety	201.00	68.17	74.78	73.36	1.42
2	Loss Reduction		39.63	24.31	18.04	6.27
3	Reliability		72.48	65.06	62.68	2.38
4	Load Growth		9.00	10.19	3.16	7.04
5	Technology & Infrastructure		91.35	90.61	90.13	0.48
	<b>Total</b>	<b>201.00</b>	<b>280.63</b>	<b>264.96</b>	<b>247.36</b>	<b>17.59</b>
<b>FY 2021-22</b>						
1	Statutory & Safety	393.00	17.59	16.40	14.47	1.93
2	Loss Reduction		67.36	43.99	35.45	8.55
3	Reliability		114.42	110.35	106.01	4.34
4	Load Growth		30.52	28.87	19.90	8.97
5	Technology & Infrastructure		68.84	48.15	42.14	6.00
	<b>Total</b>	<b>393.00</b>	<b>298.73</b>	<b>247.76</b>	<b>217.97</b>	<b>29.78</b>
<b>FY 2022-23</b>						
1	Statutory & Safety	310.00	17.66	12.18	7.35	4.83
2	Loss Reduction		52.85	33.90	26.19	7.71
3	Reliability		131.63	70.37	47.99	22.38
4	Load Growth		118.26	85.43	45.19	40.24
5	Technology & Infrastructure		60.16	27.07	17.65	9.41
	<b>Total</b>	<b>310.00</b>	<b>380.56</b>	<b>228.95</b>	<b>144.37</b>	<b>84.57</b>
<b>FY 2023-24</b>						
1	Statutory & Safety	338.00	16.0	0.04	0	0.04
2	Loss Reduction		35.0	0.94	0	0.94
3	Reliability		115.0	9.77	0.21	9.55
4	Load Growth		50.0	8.16	1.66	6.50
5	Technology & Infrastructure		67.72	0.90	0.03	0.87
	<b>Total</b>	<b>338.00</b>	<b>283.72</b>	<b>19.81</b>	<b>1.90</b>	<b>17.90</b>
<b>Total upto 30-09-2023</b>						
1	Statutory & Safety	1242.00	119.42	103.39	95.18	8.21
2	Loss Reduction		194.84	103.15	79.68	23.47

Sl. No.	Major Category	Vesting Order	Capex Approved	Actual Capex till 30-09-2023	Capitalised till 30-09-2023	Balance to be Capitalised
3	Reliability		433.53	255.55	216.89	38.66
4	Load Growth		207.78	132.65	69.91	62.74
5	Technology & Infrastructure		288.07	166.72	149.95	16.77
	<b>Total</b>	<b>1242.00</b>	<b>1243.64</b>	<b>761.47</b>	<b>611.61</b>	<b>149.85</b>

13. TPCODL has submitted that Capital investment is required to improve Power supply reliability, reduce the AT&C losses, ensure the safety and security of network, make the network adequate enough to cater the load growth and implementation of the technology to bring process efficiency in the operations. Further, other infrastructure inherited by the company viz. Office, Stores, Customer Care/ Service Centres etc. require significant refurbishment.
14. For the purpose of achieving the above objectives, the TPCODL has framed its Capex Investment plan, which is based upon the following needs/ requirements:

**Statutory & Safety** – Investment required for addressing unsafe conditions and making the network statutory compliant. This covers Refurbishment jobs, setting up of safety culture through PPEs and testing equipment, Meter Testing lab etc.

**Loss Reduction** – Investment required for taking initiatives to improve Billing or collection efficiency or reducing the technical Losses in the network. This includes Energy auditing, LT Bare to AB Cable and Defective cable replacement, Network Reconfiguration, Damaged Service Line replacement etc.

**Reliability** – Investment required to improve the Reliability and Quality of Power Supply by taking various initiatives like Feeder addition / augmentation, N-1 redundancy, old equipment replacement etc.

**Load Growth** – Investment is required to meet the Load Growth in the network and making the network future ready. This includes Augmentation / Addition of Power Transformers and DTRs, New Connection release etc.

**Technology and Infrastructure** – Investment related to technology adoption and strengthening of various infrastructure to improve internal as well as external customer satisfaction. This includes IT & Technology infrastructure, Civil infrastructure, etc.



15. TPCODL has identified a number of other challenges related to Metering infrastructure, Customer Services, and Technology usage. These challenges are planned to be addressed through a systematic investment plan prepared by TPCODL, a part of which was proposed by TPCODL for FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24. Tata Power has been an early implementer of latest technology in India and has perhaps large number of standalone and integrated technology platforms in use. These technologies have been instrumental in improving the overall performance of the company and been able to deliver benefit in terms of lowering losses and improving reliability and better management of business and consumers. TPCODL has prepared its strategy to create value for the customers by improving the reliability of supply for better customer experience. So, Capex intervention is required to reinforce the network to enhance the useful life of assets and bring in new technology. The proposed Capex plan represents a justified and efficient level of total capital investment estimated by TPCODL to meet its service obligation ensuring safe and reliable network, maintaining high level of service standards and to provide customer services at benchmark level through process improvement, capacity building and technology adoption.
16. Adopting the similar methodology of previous years, TPCODL has submitted its Capital Expenditure proposal for the FY 2024-25 under five heads. TPCODL, in the proposed expenditure for the FY 2024-25, has covered the roadmap schemes wherein investments would be spread over more than one year. TPCODL has proposed CAPEX plan keeping in view improve Power supply reliability, reduce the AT&C losses, ensure the safety and security of network, make the network adequate enough to cater the load growth and implementation of the technology to bring process efficiency in the operations. The petitioner has submitted a revised summary table of its proposal, on Commission's request by rounding the amount upto two decimal places (Rs. In Cr.) which has been considered for approval. The details of the proposed Capex under five different heads, namely, Statutory & Safety, Loss Reduction, Reliability, Load Growth and Technology & Infrastructure are described as follows:

**A) Safety and Statutory**

This includes Investment required for addressing unsafe conditions and making the network statutory compliant and covers refurbishment works, set up of safety culture, maintaining equipment healthiness and network physical strength.

**a) Testing Equipment for STS**

TPCODL has submitted that there are nearly 325 maintenance units spread across 30,000

square kilometres area for periodic testing of 33kV, 11kV, and LT equipment in order to ensure smooth functioning of the network. Since inception, TPCODL has been providing new testing equipment to these maintenance units gradually and also replacing the defective equipment which are beyond repair. The petitioner has proposed CAPEX of Rs. 2.00 Crores for the procurement of testing and diagnostic equipment.

**b) Interposing Poles**

To ensure safety of employees, public & animals and cater reliable power supply to end consumers the petitioner proposes refurbishment of 33kV, 11kV and LV lines, i.e., installation of interposing poles emphasizing critical areas such as schools, hospitals, markets, areas of frequent human mobility and locations with low clearance, high sag, greater span lengths vis-à-vis standard statutory limits. Under this proposal, the petitioner has proposed CAPEX of Rs. 3.00 Crores for the installation of Interposing poles (WPB Poles & PSC Poles) at various locations.

**c) Construction of Boundary Wall and Fencing**

The petitioner has submitted that many PSSs are being used as section and sub-division offices. Costlier equipment and materials are stored at many PSSs and there are chances of theft. Due to non-availability of boundary wall with concertina coil fence, and metal fence between control room and 33kV switchyard, it is difficult to avoid entry of unauthorized staff, public and animals into the PSS / live switchyard and there are chances of accidents. From safety and security point of view, the live structure area needs to be barricaded with chain link fencing to avoid public contact with the live structure area inside the PSS and to provide a clear path to access the offices. Further, the DSS area needs to be fenced to avoid public contact and animal accidents and provide secure area for working and maintenance purpose. For construction of boundary wall at 15 nos. of PSSs, erection of chain-link fencing at the PSS and DSS fencing of 200 nos. of DSSs, the petitioner has proposed CAPEX of Rs. 4.00 Crores.

**d) Meter Testing Lab**

Under this head, the petitioner has proposed for purchase of Battery-operated drill machines, Multimeters for Meter Management Group (MMG) engineers and construction of a store room in the campus of MRT, Bhubaneswar office for safe custody of testing equipment and accessories. Battery operated drill machine is necessary for facilitating the field teams in providing new connections to consumers at sites with no power supply with less time and proper safety. And Multimeters for MMG engineers for HT metering will

ensure correct polarity of CT for metering purpose which is not available in Clamp meters. Further due to unavailability of space for storage of testing equipment and accessories at MRT, Bhubaneswar office, security issue arises since there is no mechanism for unauthorized access. Therefore, the petitioner has proposed construction of a store room with size 12' X 12' at MRT, Bhubaneswar office. The petitioner has proposed an estimated cost of Rs. 0.42 Crores under this activity.

**e) 11kV/LT Network Refurbishment**

The petitioner has submitted that in order to ensure safety of public & animals and cater reliable power supply in its vast LT network of 50027 Ckm and 11kV network of 39277 Ckm, replacement of degraded 11kV lines with new 11KV Conductors and LT Bare overhead conductors and defective LT AB cable with new LT AB cable is necessary. The petitioner has submitted an estimate of Rs. 3.97 Crores for this purpose.

**Table 3: Proposed CAPEX Under the Head Safety and Statutory**

Main Budget head	Activity	Board approved Budget (In Cr.)
Safety & Statutory	Testing Equipment for STS	2.00
	Interposing Poles	3.00
	Construction of Boundary Wall and Fencing	4.00
	Meter Testing Lab	0.42
	11kV/LT Network Refurbishment	3.97
	<b>Total</b>	<b>13.39</b>

**B) Loss Reduction**

Under this head, TPCODL has proposed Damaged Service Line/ Cable Replacement, Metering of Distribution Transformer with Smart Meter, Network reconfiguration and LT Bare to LT AB Cable Conversion.

- a) **Damaged Service Line Replacement:** The petitioner has submitted that in its area of operation, there are many meters which have joints in the supply cable which can cause electrocution and electricity pilferage thereby resulting in high AT&C loss. TPCODL has proposed an amount of Rs. 4.00 Crores for replacement of such cables which are damaged or have joints.
- b) **Smart Metering at Distribution Transformer (>63 KVA) for Energy Accounting:**  
TPCODL has submitted that Energy Accounting prescribes accounting of all energy inflows at various voltage levels in the distribution periphery of the network and has proposed for smart metering at Distribution Transformer (>63 KVA) level. For the

proposed cause, around 18000 meters are required which will be executed in phased manner. The petitioner has planned to cover 3500 meters along with procurement of the required cable, LTCT Box and other accessories for DT Metering and has proposed an amount of Rs. 8.00 Crores for the aforesaid activity.

- c) **Network Reconfiguration:** The petitioner has submitted that 33kV networks are lengthy and radial in nature at most places thereby having overloading and low voltage issues which in turn increase the technical loss of the network. Therefore, TPCODL has proposed 33kV Interlinking Line from 33kV Naraj to 33kV Barang Feeder near Ashok Leyland to Barang PSS (4 Ckm) with AAA Conductor and Installation of 1 No. of 33 kV RMU with Laying of 33kV UG Cable near Barang PSS (0.5 Ckm). Further it has proposed for laying of 33kV UG Cable from CDA GSS to T-off R.K.Agro Industries (4 Ckm) and Installation of 1 No. 33 kV RMU in order to achieve ring configuration. The petitioner has proposed CAPEX of Rs. 8.04 Crores for the above works.
- d) **LT Bare to LT AB Cable Conversion:** TPCODL has submitted that the bare conductor lines are subject to electricity theft through direct hooking and are prone to transient faults, thereby increasing the AT&C loss in the system. TPCODL has suggested for replacement of overhead bare conductors with new aerial bundled cables, which will help in providing reliable power supply for all consumers & stakeholders. TPCODL has proposed a CAPEX of Rs. 9.98 Crores for this purpose.

**Table 4: Proposed CAPEX Under the Head Loss Reduction**

Main Budget head	Activity	Board approved Budget (In Cr.)
Loss Reduction	Damaged Service Line/ Cable Replacement	4.00
	DT Smart Metering	8.00
	Network Reconfiguration	8.04
	Conversion of LT Bare to LT AB Cable	9.98
	<b>Total</b>	<b>30.02</b>

### C) Reliability

The Petitioner has proposed CAPEX for various schemes and activities under the head of Reliability for an estimated amount of Rs. 217.83 Crores as described below:

- a) **Automation of Conventional Sub-Stations:** TPCODL has submitted that deploying GSAS (Grid station automation system) since FY 2020-21 has improved productivity of manpower, smart utilization of asset, quick decision making, automated remote monitoring and control along with state-of-the-art asset management and thus far have automated 216 nos. of PSS,

integrated 185 nos. of 33/11KV Primary Substations (PSS) with SCADA and unmanned 82 nos. of PSS. Out of 375 PSS, 272 PSS would be automated by March 2024 and balance 103 are considered for automation in FY 24-25 for which the petitioner has given a proposal for an amount of Rs. 16.00 Crores. The petitioner has proposed an additional amount of Rs 2.20 Crores for SCADA enablement at 20 nos. of 33/11 kV PSS and 0.80 Crores for replacement of existing old and depleted DC system to cater the load of existing electrical & protection equipment and GSAS. The total CAPEX proposed under this head is Rs. 19.00 Crores.

- b) **FRTU and Communication for RMU:** Standalone RMUs are being installed and commissioned across the distribution network to improve the reliability of the network. The petitioner has proposed installation of FRTUs with GPRS/3G/4G/5G modems at RMUs locations for remote monitoring and control, which will enable centralized visibility of Secondary Distribution network at Centralised Power System Control Centre (PSCC) for faster decision-making, restoration of the network and smooth implementation of ADMS applications. The petitioner has proposed an amount of Rs. 3.00 Crores for installation of FRTU and Modems at 70 nos. of RMU locations.
- c) **Replacement of Old Equipment:** TPCODL has submitted that based on their detailed survey, it was found that at some places intervention at equipment level is required to make the network strong & trouble free, so as to ensure reliable power distribution till customer point. In this scheme, the petitioner has proposed an amount of Rs. 20.00 Crores for replacement of such old network equipment which may fail or lying faulty at priority locations.
- d) **33KV Network Infrastructure:** TPCODL has proposed plans for Mitigation of Overloading issues, Power Evacuation from lightly loaded/ upcoming new OPTCL grids and Feeder Refurbishment at many locations under this head. The petitioner has explained the overloading issues at nine different feeders can be mitigated and has put forward plans of 33 kV feeder interlinking between different PSSs and installation of RMUs for which the estimated amount is Rs. 32.62 Crores. TPCODL has further proposed for construction of 10Ckm new U/G line from Baliantha GSS to Phulnakhra 33/11kV PSS for evacuation of power and 1 no. of 33kV RMU at Phulnakhra PSS for load splitting and has submitted an amount of Rs. 13.00 Crores for the above proposal. TPCODL has submitted that based on the survey reports, it has observed that in some of the feeders, conductor sizes are different resulting to compromising of the circuit current carrying capacity, which is limited to the lowest size of the conductor available in the circuit and causing overloading of the feeders. For the said issue, the petitioner has proposed for feeder refurbishment of four existing 33kV

feeders to provide reliable power supply and has given an estimate of amount Rs. 10.00 Crores. The total CAPEX for the proposed activity is Rs. 55.63 Crores. The amount proposed for the above activities under 33 kV Network Infrastructure has been rectified as per the detailed BoQ of Petitioner's original submission which is Rs. 55.63 Crores instead of Rs. 56.63 Crores.

- e) **11KV Network Infrastructure:** TPCODL has submitted that, in the annual load flow study, out of a total 1411 nos. of 11kV feeders, 117 nos. of 11kV feeders were identified to be overloaded (loading  $\geq 90\%$ ) in the peak loading condition of FY 2023-24 and after subsequent interaction with their field teams the proposal requirements for 67 nos. of 11kV feeders has been submitted to the commission under CAPEX FY 2024-25 and for the remaining overloaded feeders, proposals have already been considered under different TPCODL/ Govt. schemes. Proposals for augmentation of existing 11kV feeders, laying of new 11kV feeders for interlinking along with installation of RMUs and feeder bifurcation has been proposed with a total estimated amount of Rs. 89.20 Crores. The petitioner has also submitted that the above proposals shall render flexibility to field units during load transfer between feeders, lower interruption and strengthen the existing network.
- f) **LTDB Installation:** TPCODL has submitted that in the existing scenario, due to the absence of LTDB after the Distribution Transformer, any faults or shutdown at LT feeder level affects the respective 11KV feeder and the connected consumers. Installation of LTDB would ensure flexibility to the field teams in 11kV & LT operation thereby improve the SAIDI and SAIFI parameters. The petitioner has proposed the installation of 720 nos. of LTDB with MCCB at 100 kVA DTs, 500 nos. of LTDB with MCCB at 250 kVA DTs and 350 nos. of LTDB with MCCB at 500 kVA DTs amounting to a total proposal of Rs. 30.00 Crores.

**Table 5: Proposed CAPEX Under the Head Reliability**

<b>Main Budget head</b>	<b>Activity</b>	<b>Board approved Budget (Rs. in Cr.)</b>
Reliability	Automation of Conventional Substation	19.00
	FRTUs and Communication for RMU	3.00
	Replacement of Old Equipment	20.00
	33KV Network Infrastructure	55.63
	11KV Network Infrastructure	89.20
	LT DB Installation	30.00
	<b>Total</b>	<b>216.83</b>

## **D) Load Growth**

TPCODL has proposed CAPEX for FY 2024-25 under the head of Load Growth with an estimated amount of Rs.90.29 Cr. as described below.

- a) **New Connection Release:** TPCODL has submitted that in order to meet the growing load, network infrastructure needs to be strengthened, and new energy meters to be installed to release the new connection. Some of the connections can be released from the existing network and some may require augmentation/addition/extension before release of new connections. Hence, TPCODL has proposed CAPEX of Rs.15.00 Crores towards expenditure on release of New Connections.
- b) **Service Cable for New Connection:** TPCODL has submitted that in order to release new consumer connection. New Meter connections has to be done with new service cables of different sizes for all the new connection. The petitioner has proposed a differential cost of Rs 8.00 Crores for the aforesaid activity.
- c) **Power Transformer Augmentation:** TPCODL has submitted that to cater the increasing load demand, PTR augmentation is required to avoid any overloading conditions. While superimposing the future loading pattern on the existing network it was found that some of the Power Transformers might be overloaded and the present transformer capacity will not suffice the overloading criteria of >70% loading of PTR. In the annual load flow study, out of a total 809 nos. of 33/11kV PTRs, 131 nos. of PTRs are identified to be overloaded in the peak loading condition of FY 2023-24. Therefore, the petitioner has proposed for augmentation with 7 nos. of 16 MVA and 3 nos. of 25 MVA PTR along with construction of New Control Room and rest of the PTR overloading has been proposed to be mitigated by PTR swapping/ 11kV feeder swapping/ 11kV feeder shifting/ 11kV feeder load diversion, etc under different TPCODL/ Govt. schemes. TPCODL has estimated CAPEX of Rs. 47.32 Crores under this activity.
- d) **Distribution Transformer Augmentation:** TPCODL has submitted that in order to cater the increasing load demand, DT augmentation / DT addition is required to avoid overloading of transformer leading to transformer failures and power interruptions. Therefore, the petitioner has proposed augmentation of 52 Nos of DTs from 100 kVA to 250 kVA and 67 nos. of 250 kVA to 500 kVA with a total estimated cost of Rs. 19.97 Crores. Further, the information related to the swapping of DTRs along with the location details have been provided by TPCODL.

**Table 6: Proposed CAPEX under the Head of Load Growth**

Main Budget head	Activity	Board approved Budget (Rs. in Cr.)
Load Growth	New Connection Release	15.00
	Service Cable for new Connection	8.00
	Power Transformer Augmentation	47.32
	DT Augmentation	19.97
	Total	<b>90.29</b>

E) **Technology & Infrastructure:** TPCODL has proposed for an amount of Rs. 65.00 Crores for execution of various activities and plans under this head which are as follows.

a) **Residential Training Centre:** Currently there is only one training Centre at Bhubaneswar and TPCODL has proposed for the construction of G+2/ G+3 building as Residential training Centre to conduct full syllabus training programs of two or more days, at Puri division in their own premises. The petitioner has proposed that the total Cost for execution of the above-mentioned scope for Residential Training Centre is Rs.25.00 Crores, out of which Rs. 13.00 Crores has been proposed for CAPEX of FY 2024-25, with completion period of 18 months.

b) **IT-Software, User Devices, Backup System, Storage Devices and Application:**

TPCODL has proposed its CAPEX of Rs. 32.15 Crores in the DPR for FY 2024-25 under this scheme as described below.

- **Laptops\Desktops:** TPCODL has submitted that in order to achieve best services for consumers (increasing at around 6% per annum), it is proposed to procure Laptops and Desktops with 5 years' warranty till FY 2024-26 and to replace out old Warranty Devices. TPCODL has proposed for procurement of 270 nos. of Laptops and 40 nos. of Desktops with an estimated cost of Rs.3.00 Crores.
- **Printers and Scanners:** TPCODL has submitted that all its offices are required to be enabled with IT system, Printing and Scanning facility to provide best in class services to its consumers and has proposed for procurement of 400 nos. each of Printer and Scanner machine with a total capital expenditure of Rs. 2.12 Crores.
- **Physical Security Solution (i.e. Surveillance System and Access Control, etc):** TPCODL has submitted that it has established PSSs, offices, GRFs, consumer care center, cash collection centers etc. at various locations, most of which are visited by consumers. 24x7 basis surveillance is required to monitor the ongoing activities. The petitioner has proposed for installation of physical security solution at various



locations such as various types of cameras, video recorder, central server & storage at Data Centre, centralized monitoring system comprising of a wide screen and operator's desk. For the said cause, video surveillance system is required to be installed at 121 nos. of locations which shall be carried out in a phased manner. The petitioner has proposed for execution of the said plan at 05 nos. of locations in FY 2024-25 with an estimated cost of Rs. 2.00 Crores.

- **Communication Network:** TPCODL's communication network comprises of mainly MPLS Connectivity provided by different Telcos at approx. 110 nos. of locations and therefore has a dependency on Telcos for the network connectivity. The petitioner has proposed an estimated amount of Rs. 8.00 Crores for implementation of own Optical Fiber Network and technologies viz. MPLS/OFC/5G/VSAT/LEO/Network for various offices at Major towns along with stable connectivity between Data Centre and DR Centre for seamless replication.
- **Network Equipment for Locations - LAN/Switches/Wi-Fi/Infrastructure Augmentation:** Network connectivity at TPCODL's offices is required to enable employees to perform business critical processes like metering, billing, collection, power outage management and meeting performance assurance timelines. Unavailability of network would increase the restoration time of power outage and delay in providing other critical services to consumers thereby impacting the consumer satisfaction. Therefore, the petitioner has proposed to procure network equipment like Routers, Switches and Wi-Fi Devices with controller with an estimated amount of Rs. 0.50 Crores.
- **Cyber Security Initiatives - Up to date cyber security measures (SIEM/iNMS etc.):** TPCODL conduct many functions through software applications such as SAP ERP, SAP ISU, AMR, AMI, ADMS, GIS and also provides Web/Mobile Applications to its customers and employees on Internet and sends information through emails, SMS alerts etc. Business critical data is being collected, processed, stored and made available to users through these applications. For the purpose of protection of its network, digital infrastructure, software applications and other services from malicious attacks and cybercrimes, additional security measure needs to be adopted to ensure data protection, traffic filtration, and vulnerability assessment of deployed IT applications in the existing data center along with regular monitoring through Security Operations Centre (SOC) for preventive actions. The

petitioner has proposed for procurement of SIEM & SOAR software solution, 350 nos. of PAM solution, 2500 nos. of Email SPAM Protection, 70 nos. of Antivirus Security for servers and 3600 nos. of Antivirus Security for User devices with a total CAPEX proposal of Rs. 6.04 Crores.

- **Augmentation DC and DR Infrastructure Hardware and Software Expansion:** TPCODL implemented SAP-ISU for Customer Relationship Management, reading, billing, etc., reports as full historical data. TPCODL has submitted that R-APDRP Server are now End-of-Life and side by side for DR Set up and Servers with equivalent of DC Production capacity are required. The petitioner has proposed Rs.7.00 Crores for procurement of 21 nos. of servers and Server Management automation tool.
  - **Software and License (SAP/ERP/DB/OS/others etc.) for Data Center:** TPCODL has proposed to procure 1000 nos. of MS office, 2000 nos. of Remote Support solution (Anydesk / TeamViewer), 30 nos. of Adobe Professional and Warehouse Management System to cater to new requirement with a lumpsum budget of Rs. 1.50 Crores.
  - **Analytical tools for operations & Implementation of Block-chain/ latest technology for Data Protection:** With introduction of Data Protection Act 2023 of GoI and retention of logs for 10 years, it is vital to implement tools for Data protection. Further, with huge transactions to cater to 30 Lakh consumers along with historical data, it is essential to have various Analytical tools for operations & Implementation of Blockchain/ latest technologies. Therefore, the petitioner has proposed a budget of Rs. 2.00 Crores to procure the required Hardware and software tools.
- c) **Civil Infrastructure:** - TPCODL has proposed an amount of Rs. 16.00 Crores for this activity, out of which Rs. 2.50 Crores is estimated for procurement of Furniture such as Workstations, Tables Storage cabinets, Chairs etc. for its offices, Rs. 0.60 Crores for Lock and key enabled Rack system storage solution and Rs. 3.00 Crores for construction of section and SDO offices in their own land which are currently functioning from rented space, Rs. 3.50 Crores for Store Yard development for optimization of material storage, ensure security and to provide all weather access to stores. The petitioner has estimated an amount of Rs. 1.50 Crores for construction of 2 nos. of DT workshops, Rs. 1.30 Crores for development of Infrastructure at its five Skill Development Centre's in five

circles and Rs. 3.60 Crores for construction of new Division office at Dhenkanal & Paradeep and Circle office at Cuttack which are currently functioning at rented buildings.

- d) **Administration Infrastructure:** TPCODL has submitted that, purchase of new office equipment and furniture is necessary to replace the damaged and old ones in the existing office and furnish the new offices. The petitioner has proposed Rs. 0.75 Crores for Office Furniture, Rs. 2.30 Crores for Air-Conditioner, 0.08 Crores for Water Cooler, Rs. 0.09 Crores for Water purifier, Rs. 0.10 Crores each for Photocopier and Display unit, Rs. 0.08 Crores for Projector & Screen and Rs. 0.5 Crores for Technology Centre amounting to a total CAPEX proposal of Rs. 4.0 Crores under this head.

**Table 7: Proposed CAPEX under the Head Technology & Infrastructure**

Main Budget head	Activity	Board approved Budget (Rs. in Cr.)
Technology & Infrastructure	Residential Training Centre	13.00
	IT-Software, User Devices, Backup System, Storage Devices and Application	32.15
	Civil Upgradation	16.00
	Admin Infrastructure	4.00
	<b>Total</b>	<b>65.15</b>

17. The table below summarizes the overall capex plan proposed by TPCODL for FY 2024-25.

**Table 8: Summary of the investment proposed by TPCODL for FY 2024-25**

Main Budget head	Activity planned	TPCODL's Proposal (Rs in Cr.)
<b>Safety &amp; Statutory</b>	Testing Equipment for STS	2.00
	Interposing Poles	3.00
	Construction of Boundary Wall and Fencing	4.00
	Meter Testing Lab	0.42
	11kV/LT Network Refurbishment	3.97
	<b>Total under Safety &amp; Statutory</b>	<b>13.39</b>
<b>Loss reduction</b>	Damaged Service Line/ Cable Replacement	4.00
	DT Smart Metering	8.00
	Network Reconfiguration	8.04
	Conversion of LT Bare to LT AB Cable	9.98
	<b>Total under Loss reduction</b>	<b>30.02</b>
<b>Reliability</b>	Automation of Conventional Substation	19.00
	FRTUs and Communication for RMU	3.00

	Replacement of Old Equipment	20.00
	33KV Network Infrastructure	55.63
	11KV Network Infrastructure	89.20
	LT DB Installation	30.00
	<b>Total under Reliability</b>	<b>216.83</b>
<b>Load Growth</b>	New Connection Release	15.00
	Service Cable for new Connection	8.00
	Power Transformer Augmentation	47.32
	DT Augmentation	19.97
	<b>Total under Load Growth</b>	<b>90.29</b>
<b>Technology &amp; Infrastructure</b>	Residential Training Centre	13.00
	IT-Software, User Devices, Backup System, Storage Devices and Application	32.15
	Civil Upgradation	16.00
	Admin Infrastructure	4.00
	<b>Total under Technology &amp; Infrastructure</b>	<b>65.00</b>
	<b>Grand Total</b>	<b>415.68</b>

18. The Commission had sought various queries across the major heads and sub heads of Capex proposal and in response to those queries, the Petitioner-TPCODL has submitted the following.
- i. As regards Fixed Asset Register, showing year-wise, scheme-wise (i.e Government, Consumer Contribution, Commission's Capex approval, etc.) location wise and component wise, up to FY 2023-24, TPCODL has submitted the Fixed Asset Register in the manner as sought by the Commission.
  - ii. With regard to name and location of the proposed activities and assets to be created during FY 2024-25, TPCODL submitted the location wise details against the activities proposed in the Capex plan for FY 2024-25.
  - iii. Regarding percentage loading of the DTRs & PTRs proposed for augmentation, TPCODL has submitted the details of current PTR loading and also taking into account the load growth and the expected loading during summer of 2024. The petitioner has also submitted the current phase-wise loading of DTRs.
  - iv. In regard to Capex submitted not being in line as per Regulation 3.2 "*Capital Investment*" of OERC (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022. The information such as capitalization schedule, load flow study, financing plan, cost benefit analysis and all such items under Regulation 3.2 which were not provided in the DPR were to be submitted. TPCODL

has submitted that the Capital Expenditure proposal filed for the FY 2024-25 will be capitalised in FY 2024-25 & FY 2025-26. The Load Flow Study has been submitted as a part of this petition and as regards the Cost Benefit Analysis, the same has been provided as part of explanation/justification of the schemes presented in the DPR. The financing of the Capital Expenditure /Capitalisation would be funded by TPCODL in the Debt to Equity Ratio of 70:30 after considering the GRIDCO Contribution of Equity in Kind.

- v. With regard to detailed statement on swapping of lower capacity DTRs/ PTRs, TPCODL has submitted the details of swapping of DTRs & PTRs with location details and present loading condition.
- vi. Regarding details on accounting, treatment and movement of decapitalized assets, TPCODL has submitted that it has a detailed decapitalization process which is mapped in SAP and the Fixed Asset Register of the Company. TPCODL has explained that:
  - All Assets that are to be de-capitalized are required to be recorded as decapitalized in the DISCOM's FAR.
  - A detailed Decapitalization Note is to be provided for decapitalization of any existing asset, arising due to factors such as non-availability of Asset or it being found unfit for use on Physical Verification of Vested Assets transferred as per Opening Balance Sheet, theft, burnout, complete damage assessed not capable or commercially viable for repair, obsolescence etc.
  - The Decapitalization Note requires the following information to be provided: (i) Asset No. to be retired (ii) Asset Class (iii) Asset Description (iv) Date of Acquisition/Completion/HOTO (v) Sl. No. (vi) Quantity (vii) Base Unit of Measure (viii) Status (Why requires decapitalization), viz. Theft/ Burnt/ Damaged/ Retirement, etc. (ix) Name of Division (x) Name of Section (xi) Exact Location/ Area (xii) Store Receiving No. with Acknowledgement of Damaged/ Scrap Assets (xiii) Name of Scheme (100%, 6%, Own Capex, etc.)
  - On approval of Decapitalization proposal, necessary decapitalization is carried out with the Original Cost of such fixed Assets and Accumulated Depreciation being removed from the FAR and Financial Account.
  - In accordance with the Regulation 3.8.6 of the 'Odisha Electricity Regulatory Commission (Terms and Condition for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2022, any loss on such retirement/ decapitalization shall be allowed to be recovered through ARR subject to approval

of the Commission for such retirement/ decapitalisation. Based on the above, any Decapitalisation of Asset is brought to the Hon'ble Commission for approval.

- The Decapitalized Asset, subject to it being commercially viable (viz. transport cost being less than likely scrap sale proceeds) is transferred to the Stores.
- A committee examines the material, and only on its recommendation for scrapping, the same is taken up for sale through auction. The income from such scrap sale is accounted for in terms of Regulation 5.9.2 (b) of Tariff Regulations, 2022, which is reproduced below:

*“5.9.2 (b) Income from sale of scrap pertaining to period prior to effective date and Profit/ Loss from sale of scrap of assets created after effective date.”*

- vii. With regard to the declaration that there is no duplication of work between the activities to be carried out in the proposed Capex and the assets created through Government Schemes/ support, TPCODL confirmed that there is no duplication, i.e., the schemes proposed by TPCODL are not included in the Government Schemes.
- viii. Regarding the reason for consideration of items which are not Capex in nature such as hiring of vehicles, civil repair works, R&M of boundary walls etc., TPCODL has submitted that in the CAPEX petition, under Scope of Proposal, it has been erroneously mentioned as “Construction/ repair of Boundary Wall”. TPCODL has not considered any repair and maintenance work under proposed CAPEX budget. Only new boundary wall construction is being covered.
- ix. In regard to details of item-wise contribution made by each DISCOM and the DPR for development of DR center & DC, as all 4 DISCOMs are investing in development of a Common Disaster Recovery (DR) center at TPWODL and Data Center (DC) in TPCODL area. The petitioner has submitted that for the proposed common Disaster Recovery Center (DR) at Sambalpur for TPCODL, TPWODL, TPNODL and TPSODL; all the concerned utilities have considered replication of computer network and storage capacity of their respective Data Centers in the proposed DR. Individual discoms have accordingly proposed necessary IT equipment needed for replicating its Data Center capacity at the DR (in the approved CAPEX DPR for FY 24) which will be exclusively used by them. Common DR components like Civil infrastructure, Building Management System, Cooling System etc. have been included in the FY 24 CAPEX Proposal by TPWODL only and such infrastructure and facilities are not part of any other DISCOM's proposal. TPCODL has proposed an expenditure of Rs 7 Crores under this head for installation of 21 nos. of Servers.

- x. Submission of FY wise procurement status of Laptops, Desktops and Tablets (approved vis-à-vis procured), to which the petitioner has submitted the details as below.

Item	FY 2020-21 (in Cr.)		FY 2021-22 (in Cr.)		FY 2022-23 (in Cr.)		FY 2023-24 (in Cr.)	
	Qty.	Expenditure	Qty.	Expenditure	Qty.	Expenditure	Qty.	Expenditure
Laptop	1000	6.7	452	3.48	150	1.62	100	0.81
Desktop	300	1.61	75	0.44	60	0.39	50	0.3
Tablets	10	0.05	0	0				

- xi. Providing the list of fencing of DSS/ DTR & repairing/ construction of boundary wall of PSS along with location that are already completed, proposed and remaining numbers of DTRs & PSS that require fencing. TPCODL has provided the details to the commission.
- xii. Regarding justification for price variation (unit rate) of various equipment/ activities (e.g., Transformers, SCADA, IT equipment, etc.) in the current proposal since the procurement is being carried out through Centralized Procurement Group on behalf of all 4 DISCOMs, the petitioner has submitted that the Centralised Contracts Group (CCG) was formed in June 2023 and prior to that, all tenders were being handled by Individual DISCOMs. The estimates have been provided on the basis of the Cost Data Book (CDB) with suitable escalation. There may not be any difference between the Discoms in terms of costs for such items. However, the CDB would not have all the items required in the proposal for which the rate may vary as they are based on Last Price Procured (LPP) or Budgetary Quote received by the Individual Discoms. Notwithstanding the above, when it comes to execution of projects, many items would be procured by the CCG on behalf of Discoms and there would not be any difference in rate.
- xiii. In regard to necessity of some proposals under Civil and Admin expenses of CAPEX like a good number of Refrigerators, Inverters, Induction heaters, RO purifiers, provisions of cafeteria & canteen, water dispensers etc. to which the petitioner has submitted that it has not proposed any expenditure for Refrigerator, Inverter, Induction Heater & Water dispenser. TPCODL has proposed for RO Purifiers since most of the offices are not having water supply facilities and drinking water is being purchased from market. TPCODL is in process of making the water source available after which installation of water purifiers will be done. Regarding provision of Cafeteria & Canteen at the technology center which is under construction in power house, for 150 Seater, proposal has been submitted to furnish the cafeteria with multiple equipment.

- xiv. Submission of head/sub-head wise proposal rounded up to Lacs instead of Crores, the Petitioner has submitted the revised summary table upto two digits after decimal (in Cr). The revised submission has proposed amount of Rs. 13.39 Crores, Rs. 30.02 Crores, Rs. 217.83 Crores, Rs. 90.29 Crores and Rs. 65.00 Crores under safety & statutory, Loss Reduction, Reliability, Load Growth and Technology & Infrastructure heads respectively with a total proposal of an amount of Rs. 416.53 Crores. As per the DPR and BoQ submitted by the Petitioner, the proposed amount for the activities under 33 kV Network Refurbishment was found to be Rs. 55.63 Crores instead of Rs. 56.63 Crores, resulting the total amount under the head Reliability as Rs. 216.83 Crores. Further, as per the DPR submitted by the Petitioner, the proposed amount under the activity, Ready to use Admin Asset is Rs. 32.15 Crores instead of Rs. 32.00 Crores, amounting to a total proposal of Rs. 65.15 Crores under the head Technology & Infrastructure. Thus, the final proposal of the petitioner for CAPEX for the FY 2024-25 is Rs. 415.68 Crores.
- xv. Regarding submission of last procurement order of testing equipment for analysis of quantity proposed and unit cost of each equipment, TPCODL has provided the detailed list of the testing equipment procured.
- xvi. Justification on proposal for procurement of 50 nos. of multimeters with unit cost of Rs. 15,000.00 for the activity, Testing Equipment for STS and further 20 Nos for the activity, Meter Testing Lab with unit cost of Rs. 30,000.00. TPCODL has submitted that about 20 nos. of Multimeters under the head Meter Testing Lab (unit cost of Rs. 30000) are proposed as these are high precision equipment of reputed make (Fluke, Megger, hioki, Kyoripsu, yokogawa etc.). This equipment will be used by 20 nos. of Divisional MMG teams to ensure accuracy of CT/PT units as well as HT/EHT meters at lower ranges. The measuring ranges are from 30mA – 60A and are suitable for testing of HT/EHT for consumer & feeder meters. The cost difference in the Multimeters is arising on account of the difference in Precisions based on use.
- xvii. Regarding mismatch in the proposal submitted under the sub-head ‘Construction of Boundary Wall and Fencing’ with the Detailed cost estimate provided in Annexure-2 and providing the relevant details. TPCODL has submitted the necessary required details and estimates.
- xviii. Providing the detail estimate of SCADA enablement (Rs. 12 lakhs per PSS), TPCODL has provided the detailed SCADA enablement cost.
- xix. Submission of the detail estimate of installation of FRTU’s at RMU (Rs. 4.25 lakhs per RMU), TPCODL has provided the same.



- xx. Submission of the list of balance 103 nos. of substations that are proposed for automation which was not attached with the submission, TPCODL has also submitted the necessary list with details.
- xxi. Regarding verification of the unit cost of 11kV, Indoor AIS Switchgear panel and 33kV AIS Switchgear panel and submission of the detail specification, TPCODL has submitted that the cost estimate was checked and found in order. Specifications of both along with the Last Purchase Order of 11kV Indoor AIS Switchgear panel was provided and the petitioner mentioned that the rate for 33kV AIS Switchgear panel has been considered based on budgetary offer.
- xxii. With regard to providing reason for the proposal of 10 Kms 33kV U/G cable line from Baliana GSS to Phulnakhara PSS instead of OH line, TPCODL has submitted that the route from Baliana GSS to Phulnakhara PSS is already occupied with 33kV and LT lines and no space is available to construct the proposed 33kV lines in overhead system, so UG cable is proposed for power evacuation from the Baliana GSS.
- xxiii. Regarding justification of 15 Crores for release of new connection may be justified along with all details, TPCODL has submitted that Every year, TPCODL receives around 65000 new connections for load requirement within 1kW to 5kW through Mo-Bidyut. Out of this, about 61000 connections' supply is provided directly from existing network through service and for rest, augmentation of existing system is required to be done. For augmentation of existing network through LT network extension, cables of 3 sizes, 2X35+1X35 sq mm, 4X35+1X35 sq mm and 4x50+1X50 sq mm are considered for extension of 8000, 2000 and 50 spans respectively (detailed bifurcation given in table below). The total cost for per span extension is mapped from TPCODL standard BoQ and the total cost for execution as per the scheme is estimated to be Rs 21.5 Crores. However, considering the consumer share of Rs 8000/span as per supply code amounting to Rs 8 Crores, a balance budget of Rs 13.5 Crores is required through CAPEX approval to complete the LT extension for the new connection inflow. The remaining 1.5 Crores is to be used for augmentation of existing network (including DT and 11kV network Augmentation/ addition) to cater the load growth due to the increasing new connection in the system.
- xxiv. In regard to providing justification of proposed control room modification. An amount of Rs. 65 lakhs have been proposed against Modification and extension of Control Room for 7 nos. of PSS. It is understood that the augmentation of new power transformer work, the new transformer and its panel should replace the old units in its place. TPCODL has submitted that while replacing the existing PTRs with 25MVA, it is seen that the

existing switch panel board is of lower capacity and existing dimension of control room is small. Proposal for new 11kV feeders from the proposed augmentation PTRs are planned which required more space in the control room for installation of equipment. Thus, after PTR augmentation space required for the associated work for which no space is available for panel installation in the existing substation.

- xxv. Regarding Duplication of work proposed in the BoQ with different quantity in Annexure 12.1 to 12.7, which needs justification, TPCODL submitted that there is no duplication of the work in the Power Transformer Augmentation job. The Civil work has been presented twice in the BOQ, one for Transformer and once again for Burnt Oil Tank. It is further submitted that in the BOQ, in case of PTR augmentation estimate, Sl. No. 7 to 22 of the civil work for New PTR and from Sl. No. 23 to 33 is for the Burnt oil tank for which the quantities in each part are different.

19. The averments submitted by the Respondent-OPTCL are stated hereinafter:

- a) TPCODL has planned for network reconfiguration under the head Loss Reduction for utilisation of only 2 nos. of 33k V feeder bays, one from Godisahi GSS and other from Brajabiharipur S/S with an estimated amount of Rs. 8.00 Crores.
- b) Under the head Reliability, TPCODL has proposed development of 33 kV infrastructure under mitigation of overloading with a budget of 32.62 Crores. The specific views related to OPTCL are as follows:
  - i. That TPCODL has planned only for utilisation one 33 kV feeder bay from 132/33kV Puri S/S of OPTCL i.e 33 kV Talabania feeder to 33/11 kV Talabania PSS through UG cable with a cost of Rs 4.63 Crores.
  - ii. That TPCODL has proposed new 33 kV Jagatpur IPICOL feeder for take-off from Bahugram Grid S/S of OPTCL to 33/11 kV Jagatpur IPICOL PSS with expenditure of 8.09 Crores.
  - iii. That, in Chief Minister's Power Development Program (CMPDP/ Phase-V) Govt has outlined expenditure of Rs.108.25 Crores for construction of 157.5 CKM new 33 kV lines.
  - iv. However, in the DPR for capex plan of FY-24-25 TPCODL has shown only one take off from 33kV feeder bay of 220/33 kV S/S of Kantabada S/S of OPTCL under CMPDP programme with budget of 6.32 crore.
  - v. So, referring to para (i) to (iv), only approximately 50% of CAPEX investment by TPCODL for mitigation of overloading will fulfil the planning criterion of upstream network matching.

- c) Under the head Reliability, TPCODL has proposed creation of 33 kV infrastructure under category of power evacuation from New GSS by utilisation one 33 kV feeder bay from 132/33 kV Baliantha S/S of OPTCL i.e. 10 CKM UG line to 33/11 kV Phulnakhara PSS with a budget of 13.03 crore, OPTCL submits that the utilisation of the said feeder bay by TPCODL is not significant.
  - d) Further, in ODSSP Phase-IV, Govt has outlined expenditure of Rs. 180.45 Crore for construction of 60.65 CKT km new independent 33 kV lines and Rs 220 crore for 237.02 CKT km 33 kV line associated with PSS. However, in the DPR for capex plan of FY-24-25 TPCODL has shown only one take off, i.e., from 33kV feeder bay of 132/33 kV S/S of Satasankha S/S of OPTCL under ODSSP phase-IV programme.
  - e) In view of the above, OPTCL submits that TPCODL has not considered optimum utilization of grid capacity of OPTCL in the proposed capex and has requested the OERC to direct TPCODL for optimum utilisation of asset of OPTCL for reliable supply of power to consumers.
20. Shri Ananda Mohapatra has submitted the averments which are concisely stated as hereinafter:
- a) The Vesting Orders issued by OERC for sale of erstwhile utilities CESU, NESCO, SOUTHCO & WESCO stipulates filing of CAPEX and Business Plan by Tata DISCOMs for five years period ending with FY 25 for TPCODL and FY 26 for other Tata DISCOMs. The above order of OERC is in line with the National Tariff Policy and the relevant OERC regulations in force because five years control period is specified therein for review of the annual tariff & performances of DISCOMs. Moreover, the mechanism in respect to transformation of MYT principles into business plan is well specified in the national tariff policy and that is a span of five years whereas at the beginning time of the MYT, three years period is allowed. Therefore, filing of Capex & Business Plan for one or two years by the petitioners and consideration of same by OERC violates not only the vesting order of the Commission but also the National tariff policy and the spirit of the Electricity Act, 2003. Therefore, it is necessary to address the issue in the interest of justice.
  - b) The relevant OERC Regulations, 2022 has been notified by OERC after the issuance of vesting orders in which the 4th control period ends with FY 23 & the span of 5th control period is specified as FY 24 to FY 28 whereas the control period for filing of five years Capex ad Business Plan as per vesting orders ends with FY 25 for TPCODL and FY 26 for other Tata DISCOMs. It is evident from above that the timeline of vesting orders is mismatched with the relevant OERC Regulations.

- c) The goal of Capex under the MYT principle is to improve the capacity of the distribution infrastructure (assets), reduces losses and enables the DISCOMs to supply reliable & quality power to the esteemed consumers at reasonable tariff. Therefore, it is necessary to verify the existing capacity (assets) of the DISCOMs and without which adding more capacity to the existing capacity through Capex becomes meaningless.
  - d) While considering the Capex proposal, OERC may determine the value addition in terms of assets and reliability indices for each year of the control period so that the consumers could know the reliability quality and tariff of power supply effected by DISCOMs for the aforesaid period.
  - e) The compatibility of the distribution networks with transmission networks needs to be ensured. Therefore, it is urged upon OERC to address the issues raised by OPTCL regarding the unutilized network for creating a robust grid system.
21. The respondent, Department of Energy, has not submitted any substantial protest in respect of various activities proposed by the petitioner under CAPEX for FY 2024-25. However, during the hearing, the representative of DoE, GoO has orally submitted the following:
- a) It needs to be ensured that there should not be any repetition of work under the proposed CAPEX and the work already approved/ executed under different Government funded schemes.
  - b) Proper scrutiny of the CAPEX proposal needs to be carried out by the Commission before approving the CAPEX amount.
22. Heard the Petitioner and Respondents at length through hybrid mode. As per Section 42 of the Electricity Act, 2003 read with Condition 7 of the Licence Conditions and Regulation 4 of the General Conditions of Distribution Licence, and the OERC (Conduct of Business) Regulations, 2004, it shall be the duty of the Distribution Licensee to develop and maintain an efficient, coordinated, economic distribution system in its area of supply/ operation and to supply electricity in accordance with the provisions in the Act, Rules, Regulations and the directions of the Commission. The Commission is guided by Section 61(c) of the Electricity Act, 2003, i.e., “by the factors, which would encourage, competition, efficiency, economical use of the resources, good performance and optimum investments” while determining the tariff.
23. As per the provisions in the OERC Tariff Regulations, 2022, TPCODL has submitted the specific details of works i.e., location at which the works have been proposed, cost benefit analysis for majority of the schemes, Load flow study in Cyme software wherever necessary

and the Board approval for the same. As per the submissions of TPCODL, it was observed that TPCODL has been able to utilise around 93.82% of the approved CAPEX for FY 2020-21, 82.93% of the approved CAPEX for the FY 2021-22, 60.16% of approved CAPEX for the FY 2022-23 and 6.9% of approved CAPEX for the FY 2023-24. TPCODL has submitted that it is working towards executing the capex against the approvals and another Rs. 400.00 Crores is planned to be executed by 31.03.2024 over and above the cumulative capex executed till 30.09.2023.

24. The Commission at this stage has considered and analysed the Capex plan for FY 2024-25 based on the submissions made by the Petitioner. In the present case as per para 42 of the Vesting Order, the petitioner has committed capital expenditure of Rs.1541 Cr for the period from FY 2020-21 to FY 2024-25 as follows:

*“42. Capital investment plan*

- (b) *In its Bid submitted in response to the RFP, TPCL committed capital expenditure of Rs. 1,541 Crs. (Indian Rupee One thousand five hundred and forty-one Cr only) for period FY 2021 to FY 2025 as follows:*

*Table 1: TPCL Capital Expenditure Commitment*

*(Values in Rs. Cr)*

<b><i>FY 2020-21</i></b>	<b><i>FY 2021-22</i></b>	<b><i>FY 2022-23</i></b>	<b><i>FY 2023-24</i></b>	<b><i>FY 2024-25</i></b>	<b><i>Total</i></b>
<i>201</i>	<i>393</i>	<i>310</i>	<i>338</i>	<i>299</i>	<i>1541</i>

- (c) *To allow flexibility in the capital expenditure planning, the Commission stipulates that, in the capital expenditure plan to be submitted by TPCODL as per the license conditions, the capital expenditure commitment for each year of the period FY 2021 to FY 2025 must be such that capital expenditure proposed up to a year shall be at least equal to the cumulative capital expenditure committed up to that year in the Bid submitted by TPCL. For avoidance of doubt, the minimum cumulative capital expenditure to be proposed by TPCODL for the period FY 2021 to FY 2025 must be as provided in the table below:*

*Table 2: TPCL Cumulative Capital Expenditure for 5 years*

*(Values in Rs. Cr)*

<b><i>Up to 31-Mar-2021</i></b>	<b><i>Up to 31-Mar-2022</i></b>	<b><i>Up to 31-Mar-2023</i></b>	<b><i>Up to 31-Mar-2024</i></b>	<b><i>Up to 31-Mar-2025</i></b>
<i>201</i>	<i>594</i>	<i>904</i>	<i>1,242</i>	<i>1,541</i>

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25. As regards Capex Proposal for FY 2024-25, the petitioner has submitted that as per the Vesting Order it has to achieve a cumulative Capex of Rs.1541.00 Crores upto FY 2024-25. The Commission has approved Rs.1243.6 Crores under the Capex Plan till FY 2023-24. Hence, to comply with the commitment made in the Vesting Order, TPCODL should have submitted minimum Capex of Rs.297.4 Crores to meet the cumulative Capex commitment

of Rs.1541.00 Crores. However, TPCODL in the current Capex DPR has proposed an investment of Rs.415.68 Crores for FY 2024-25.

26. The detailed analysis of the proposed activities and the Commission's Observations for the proposed Capex by TPCODL for FY 2024-25 are stated as hereinafter:
27. **Statutory & Safety:** - The Commission has examined each activity wise capex proposed by the petitioner under statutory & safety head. We observe that the proposals of interposing poles to check sagging of conductor and keep the ground clearance as per standards is a necessity for the safety of the public and animals. Similarly, construction of boundary wall and switchyard fencing with chain link fencing in the PSS which are frequented by public for official business and DSS fencing are all imperative from safety perspective. Therefore, the Commission approves the proposed amount of Rs. 3.00 Crores and Rs. 4.00 Crores for the said activity. The petitioner has proposed to procure new testing equipment, battery operated drill machine for releasing new connection in areas with no facility of power supply and construction of store room at MRT Bhubaneswar. The commission approves the said proposals amounting to Rs. 2.00 Crores and Rs. 0.42 Crores, which are necessary to monitor the healthiness of the power distribution equipment, conduct maintenance and also the watch and ward of the testing equipment. The petitioner's proposal for replacement of defective LT AB cable/ LT Bare conductor by new LT AB cable and replacement of degraded 11KV lines with new conductors has been examined and the Commission approves the deteriorated 11KV conductors but is not inclined for replacement damaged LT AB cable which is a routine activity and should be covered under R&M activity. Further, replacement of LT bare conductor with LT AB cable has also been covered under the head Loss Reduction. The said activity satisfies both the purpose of safety of public, employees, animals and also checks energy theft. Therefore, the commission hereby approves only the activity of 11KV feeder refurbishment of Rs. 1.97 Crores. The activity wise detailed proposal and the Commission's approval are given in the table below:

**Table 9: Capex approved under the head Statutory & Safety for FY 2024-25 (Rs. in Cr.)**

SL. No	Activity	Board approved Budget	Commission's Approval
1	Testing Equipment for STS	2.00	2.00
2	Interposing Pole	3.00	3.00
3	Boundary Wall / SY Fencing / DSS Fencing	4.00	4.00
4	Meter Testing Lab	0.42	0.42
5	11kV/ LT Network Refurbishment	3.97	1.97
	<b>Sub-Total</b>	<b>13.39</b>	<b>11.39</b>

28. **Loss Reduction:** - The petitioner has proposed for replacement of defective service line cable which are either damaged or have joints and has possibility of pilferage and electrocution. It has also proposed for conversion of LT bare conductor with LT AB Cable to check energy theft and reduce commercial losses. Further the petitioner has given proposals for procurement and installation of Smart meters for 3500 nos. of DTs in order to comply with Bureau of Energy Efficiency (Manner and Intervals for conduct of energy Audit in electricity distribution companies) Regulation, 2021. In addition to the above proposals, the petitioner has proposed for 33kV network interlinking between Naraj feeder to Barang PSS and CDA PSS to 33kV Athagarh feeder for technical loss reduction and improve reliability of power supply to consumers and connected PSSs. The Commission observes that the proposed activities would help to reduce AT&C loss, improve the safety of human beings & animals, facilitate energy accounting and audit, strengthen the network and increase reliability respectively. The commission opines to take up the activity of conversion of LT bare conductor with LT AB Cable emphasizing critical areas such as schools, hospitals, markets and other key installations. The activity wise details proposal and the Commission's approval are given in the table below:

**Table 10: Capex approved under the head Loss Reduction for FY 2024-25**

**(Rs. In Cr.)**

<b>SL. No</b>	<b>Activity</b>	<b>Board approved Budget</b>	<b>Commission Approval</b>
1	Damaged Service Line Replacement - Cable Replacement	4.00	4.00
2	DT Smart Meter	8.00	8.00
3	Network Reconfiguration	8.04	8.04
4	Conversion of LT Bare to LT AB Cable	9.98	9.98
	<b>Sub-total</b>	<b>30.02</b>	<b>30.02</b>

29. **Reliability:** -TPCODL claims to be in the forefront of adoption of modern technology in the power system and has proposed for GSAS of remaining 103 nos. of conventional sub-stations and installation of FRTU with GPRS/3G/4G/5G modems at 70 nos. of RMU locations. The Commission observes that the above activities would reduce power interruption, equipment failure, improve employee productivity, enhance consumer satisfaction and facilitate SCADA implementation. The petitioner has further proposed CAPEX of Rs.20.00 Crores for replacement of sick equipment in order to strengthen the existing network, which will help in managing the load in case of any exigency and mitigate the issue of over loading etc. We are not agreeable with this proposal of TPCODL since replacement of sick equipment can very well be done through R & M. Further the petitioner

has proposed for network interlinking of 9 nos. 33kV feeders in order to mitigate feeder overloading, power evacuation proposal from Baliana Grid to Phulnakhara PSS through UG cable of 10km and augmentation of 4 nos. 33 kV feeders having different sizes of conductors resulting in limiting of the circuit current carrying capacity. It has also proposed for conductor augmentation of 11kV lines, plans for construction of new lines and interlinking feeders to mitigate overloading of 69 nos. of 11 kV feeders. TPCODL has further proposed for LTDB installation at Distribution Substation to ensure flexibility to field teams in 11 kV and LT operation thereby reducing the duration of power interruption. Considering the above requirement, the Commission approves the CAPEX of Rs.196.83 Crores for FY 2024-25 under the head ‘Reliability’. The amount proposed and approved for the activities proposed under 33 kV Network Infrastructure has been rectified as per the detailed BoQ of Petitioner’s original submission which is Rs. 55.63 Crores instead of Rs. 56.63 Crores. The activity wise details proposal and the Commission’s approval are given in the table below:

**Table 11: Capex approved under the head Reliability for FY 2024-25**  
(Rs. In Cr.)

SL. No	Activity	Board approved Budget	Commission Approval
1	Automation of conventional substation	19.00	19.00
2	FRTU and communication of RMU	3.00	3.00
3	Replacement of old equipment	20.00	0
4	33KV Network Infrastructure	55.63	55.63
5	11 KV Network Infrastructure	89.20	89.20
6	LTDB Installation	30.00	30.00
	<b>Sub-total</b>	<b>216.83</b>	<b>196.83</b>

30. **Load Growth:** The petitioner has submitted that in order to meet the growing load, network infrastructure needs to be strengthened and new energy meters to be installed to release the new connection. For this purpose, some existing network may require augmentation/ addition/ extension before release of new connection. The petitioner has proposed CAPEX of Rs.15.00 Crores for carrying out such work and has further proposed the differential cost of procurement of service cable for such new connections as Rs. 8.00 Crores. The Commission has observed that as per the petitioner’s submission, only Rs. 3.26 Crores has been spent till 30.09.2023 (6 months) for the above activity against the approved amount of Rs. 10.00 Crores in CAPEX for FY 2023-24. Considering the fact that the said activity capitalises as and when the new connections are released, it is realised that the load growth for the said activity might have been over-estimated. Therefore, the net approval for the above activities is Rs. 10.00 Crores as CAPEX for FY 2024-25. The petitioner has proposed for PTR augmentation of overloaded PTRs with overloading > 70% at 10 PSSs and DT



augmentation/ DT addition to cater the increasing load demand with proposals of Rs. 47.32 Crores and Rs. 19.97 Crores respectively. The Commission is of the view that the power system should always be capable to cater the load demand with quality power & improved reliability and therefore approves the proposals. The activity wise details proposal and the Commission's approval are given in the table below:

**Table 12: Capex approved under the head Load Growth for FY 2024-25 (Rs. Cr.)**

Sl. No.	Activity	Board approved Budget	Commission Approval
1	New Connection Release	15.00	10.00
2	Service Cable for new Connection	8.00	
3	Power Transformer Augmentation	47.32	47.32
4	DSS DT Addition / Augmentation	19.97	19.97
	<b>Sub-total</b>	<b>90.29</b>	<b>77.29</b>

31. **Technology & Infrastructure:** The petitioner has proposed for a residential training centre at Puri division of G+2/G+3 building for imparting training to its employees with an estimated amount of Rs. 13.00 Crores. The Commission acknowledges the fact that training and practical exercises with machinery and equipment would improve the productivity and with the rapid advancement of technology in power sector, training would develop the human resource accordingly and benefit the organisation and power system as a whole. Therefore, the Commission approves the above proposal. The petitioner has further proposed for procurement of Laptops, Desktops, Printers and Scanners for its offices in order to provide best in class service to the consumers. TPCODL has submitted that physical security solution i.e. surveillance system and access control is required for its 50 nos. of PSSs and 71 nos. of critical offices which are frequented by consumers along with video recorder, central server & storage at data centre and Centralised monitoring system with wide screen and operator's desk. The petitioner has also proposed for implementation of own optical fiber network and technologies for its various offices at major towns along with stable connectivity between Data Centre and DR Centre for seamless replication, procurement of network equipment like network switch, Routers with WAN ports and Wi-Fi devices with controller, undertake cyber security measures to protect application softwares and protect business critical data, augmentation of DR servers equivalent to DC Production capacity, procurement of softwares like MS Office, MS Project, AnyDesk/ TeamViewer and licences and tools viz. SAP, Server OS etc. and procurement of analytical tools for operation & implementation of blockchain/ latest technology for data protection with a total estimated CAPEX of Rs. 32.00 Crores. TPCODL has proposed for placement of furniture and storage

racks at its various offices, construction of offices currently operating from rented spaces, storage yard development, construction of two DT switchgear workshops, five Skill development centres, new division office at Paradeep and Circle office at Cuttack. The Commission approves Rs. 16.00 Crores for the above proposals of the licensee, considering the benefit in the long run and the facility it would render to the employees and customers. Further, the petitioner has proposed for procurement of office equipment like furniture, Acs, Water cooler, Water purifier, Photocopier, TV, Projector, items for technology centre of an amount of Rs. 4.00 Crores. The Commission is of the view that the said items are the basic necessity of every functional office and approves the same. Considering the above, the Commission approves the proposed CAPEX of Rs.65.00 Crores for FY 2024-25 under the head Technology & Infrastructure. The activity wise details proposal and the Commission's approval are given in the table below:

**Table 13: Capex approved under the head Technology & Infrastructure for FY 2024-25 (Rs. In Cr.)**

Sl. No	Activity	Board approved Budget	Commission's Approval
1	Residential Training Centre at Puri Div	13.00	13.00
2	IT - Software, User Devices, Back-up system, Storage devices and Applications	32.15	32.15
3	Civil Upgradation	16.00	16.00
4	Ready to Use Admin Asset	4.00	4.00
	<b>Sub-total</b>	<b>65.15</b>	<b>65.15</b>

32. The Commission has deducted certain proposed expenditure under various heads which has already been explained in the previous paras. TPCODL may approach the Commission on a later stage for approval with sufficient justification for such proposals. The activities under Capex proposal of various heads where deduction has been done are as follows:

**Table 14: Summary of the proposed activities vis-à-vis deduction by the Commission (Rs. Cr.)**

Sl. No	CAPEX Head	Activity	Board approved Budget	Commission's Approval
1	Safety & Statutory	LT Network Refurbishment	2.00	0
2	Reliability	Replacement of old equipment	20.00	0
3	Load Growth	New Connection Release	15.00	10.00
4	Load Growth	Service cable for new connection	8.00	
		<b>Sub-total</b>	<b>45.00</b>	<b>10.00</b>

33. In summary, the Commission approves an amount of Rs.380.68 Crores against TPCODL's CAPEX proposal of Rs.415.53 Crores for FY 2024-25, considering the petitioner's

summation error for the activity of 33KV Network Infrastructure under the head Reliability.

The details are shown in the table below:

**Table 15: Summary of the Capex proposed by TPCODL & approved by the Commission for the FY 2024-25 (Rs. Cr.)**

Sl. No.	Major Head	Activity	Board approved CAPEX proposal	Commission's Approval
1	Safety & Statutory	Testing Equipment for STS	2.00	2.00
		Interposing Pole	3.00	3.00
		Boundary Wall / SY Fencing / DSS Fencing	4.00	4.00
		Meter Testing Lab	0.42	0.42
		11kV/ LT Network Refurbishment	3.97	1.97
		Sub-total	13.39	11.39
2	Loss reduction	Damaged Service Line Replacement - Cable Replacement	4.00	4.00
		DT Smart Meter	8.00	8.00
		Network Reconfiguration	8.04	8.04
		Conversion of LT Bare to LT AB Cable	9.98	9.98
		Sub-total	30.02	30.02
3	Reliability	Automation of conventional substation	19.00	19.00
		FRTU and communication of RMU	3.00	3.00
		Replacement of old equipment	20.00	0
		33KV Network Infrastructure	55.63	55.63
		11 KV Network Infrastructure	89.20	89.20
		LTDB Installation	30.00	30.00
		Sub-total	216.83	196.83
4	Load Growth	New Connection Release	15.00	10.00
		Service Cable for new Connection	8.00	
		Power Transformer Augmentation	47.32	47.32
		DSS DT Addition / Augmentation	19.97	19.97
		Sub-total	90.29	77.29
5	Infrastructure	Residential Training Centre at Puri Div	13.00	13.00
		IT - Software, User Devices, Back-up system, Storage devices and Applications	32.15	32.15
		Civil Upgradation	16.00	16.00
		Ready to Use Admin Asset	4.00	4.00
		Sub-total	65.15	65.15
TOTAL			415.68	380.68

34. The year-wise and cumulative Capex approved by the Commission is shown in the table below:

**Table 16: Minimum Capex required as per Vesting Order vis-à-vis Capex approved**

<b>Financial Year</b>	<b>Minimum Capex required as per Vesting Order (Rs Cr)</b>	<b>Capex Approved by the Commission (Rs Cr)</b>
FY 2020-21	<b>201.00</b>	<b>280.63</b>
FY 2021-22	<b>393.00</b>	<b>298.73</b>
FY 2022-23	<b>310.00</b>	<b>380.56</b>
FY 2023-24	<b>338.00</b>	<b>283.79</b>
FY 2024-25	<b>299.00</b>	<b>380.53</b>
Cumulative Capex till FY 2024-25	<b>1541.00</b>	<b>1624.24</b>

35. The approved cost shall be passed in the ARR as per the norms subject to rational utilization by the petitioner and prudence check through audit.
36. The investment under Capex is always linked to benefit to consumer in terms of reliability & availability of power supply and other key performance parameters. The licensee has not submitted quantified Cost Benefit Analysis, prioritization of the proposed investment, quantification of physical targets & achievements and works required to be taken up for system improvement. It is observed that the licensee has not yet capitalized Rs. 132 Crores. under various heads, particularly under loss reduction, reliability and load growth, covered under the Capex approved for the FY 2020-21, FY 2021-22 & FY 2022-23. TPCODL has utilised 60.16% of approved CAPEX for the FY 2022-23 and 6.9% of approved CAPEX for the FY 2023-24, which is also not a good trend. Hence, it is apprehended that the total investment as proposed by the licensee for the financial year 2024-25 will not be utilized and is likely to spill over to next financial year. Considering the past trend of expenditure during previous financial years and justification for various works, Rs 380.68 Crores is approved by the Commission for the FY 2024-25. Accordingly, the cumulative investment of Rs 1624.24 Crores is approved (against minimum cumulative investment of Rs 1541 Crores.) under CAPEX upto the FY 2024-25. However, the licensee may approach the commission with proper justification and analysis for the activities disallowed in this order for due consideration and approval by the commission at a later date.
37. In addition to above observations, the Commission directs the licensee to:
- Submit the financing plan for the proposed investment under the CAPEX for the FY 2024-25 as per OERC's Wheeling and Retail Supply Tariff Regulations, 2022
  - Submit quarterly progress report for the works along with the details of materials utilised vis-à-vis various activities shown in the DPR.

- (iii) Formulate implementation plan for the approved Capital Investment and take steps for execution accordingly to avoid cost and time overrun.
- (iv) Procure the materials/award the contracts only through transparent competitive bidding process. The requirement of materials shall be prepared based on standardisation of distribution elements. The ratings of equipment / material including DTRs & PTRs (limiting the no. of ratings) and capacity of any PSS need to be standardized across the Discoms and standard specifications need to be adopted across the Discoms.
- (v) Ensure that there is no duplication of work covered under the Capex approved for FY 2024-25 and the assets created/ to be created through Government Schemes/support.
- (vi) Consider upgradation of existing PSS (instead of creating new PSS in nearby areas) keeping adequate provision for future expansion to avoid unnecessary burden on consumers. Even existing AIS installation can be converted to GIS, if required, which will improve reliability of the distribution system at reduced O&M cost.
- (vii) Plan new 33/11 kV substations with (N-1) contingency provision for incomer & Power Transformers (PTRs), double bus switching scheme/main & transfer bus scheme with Bus coupler and adequate space should be available in PSS for future expansion to avoid additional substations in the nearby areas.
- (viii) Have regular interaction with the OPTCL to ensure that the requirement of additional Grid Sub-stations (220/33 kV or 132/33 kV or 220/132/33 kV) are planned as per need of TPCODL which will help in resolving low voltage issues and at the same time the available 33 kV outlets from existing Grid Sub-stations of OPTCL should be utilised by TPCODL for their distribution system.
- (ix) Submit details of compliances of the direction given in the Capex Orders of previous years.
- (x) Provide load flow study report for the next 5 years matching with proposed work covered under the Capex plan.
- (xi) Submit the status (on the date of taking over and expected as on 31.03.2025) of existing distribution system for each division indicating the achievement (quantification) and amount of further investment required to be taken up in respect of following areas by March 2025 as justification submitted are general in nature:

- Replacement of existing overhead conductor by higher size based on long term load flow study;
- Reduction in feeder / line / section length (existing at 33kV & 11kV level);
- Reduction in overloading of 33kV & 11kV lines, PTRS, DTRs;
- Reduction in tapping of 33 kV & 11 kV lines;
- Reduction in low voltage pockets;
- Completion of boundary walls for PSSs and fencing of DSSs;
- Providing (N-1) contingency for PTRs and incomer at 33kV level in existing PSS;
- Smart metering of 33kV & 11kV feeders, PTRs, DTRs, Govt & non-Govt. establishments & 3 phase consumers etc;
- Provision of protection (CB/ AB switch, etc. & associated protection relays) for 33kV & 11kV overhead lines & UG cable, PTRs & DTRs (primary & secondary side);
- Removal of Group Control Breaker operation (at 33 kV & 11 kV level);
- Improvement in earthing in PSS & DSS;
- Provision of RMU, Auto-recloser & Sectionalizer to avoid outage of power supply to a large group of consumers;
- Length (in ckt.km.) of overhead line converted and proposed to be converted to ABC in future;
- Completion of asset mapping & consumer indexing, etc.

38. With the directions stated above, the case stands disposed of.

**Sd/-**

**(S. K. Ray Mohapatra)**  
**Member**

**Sd/-**

**(G. Mohapatra)**  
**Officiating Chairperson**